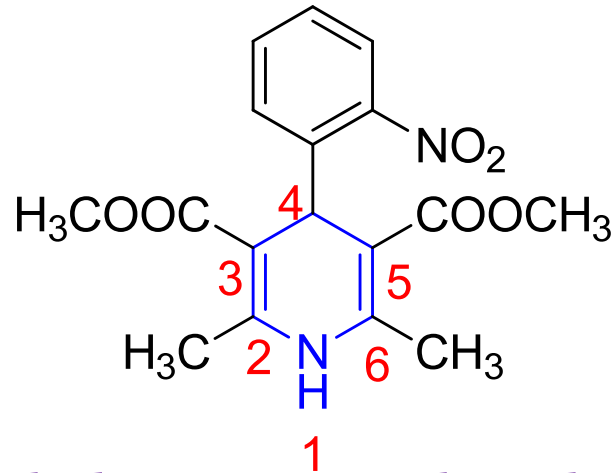


# Nifedipine

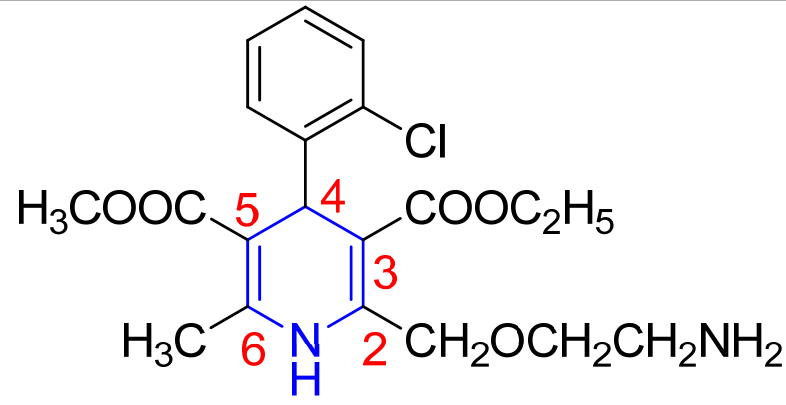


dimethyl 2,6-dimethyl-4-(2-nitrophenyl)-1,4-dihydropyridine-  
3,5-dicarboxylate

**MOA:** It blocks intracellular influx of calcium through voltage-dependent and receptor-operated slow calcium channels across the membranes of myocardial, vascular smooth muscle, and neuronal cells. By specifically binding to L-type voltage-gated calcium channels, nifedipine inhibits the calcium ion transfer, resulting in the inhibition of vascular smooth muscle contraction.

**Uses:** Used for the management of patients with chronic stable angina and for the treatment of hypertension.

# Amlodipine

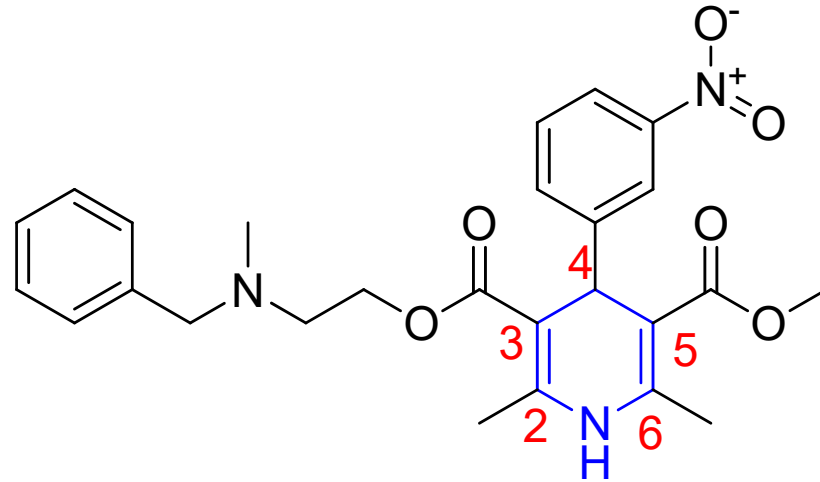


(RS)-3-ethyl 5-methyl 2-[(2-aminoethoxy)methyl]-4-(2-chlorophenyl)-6-methyl-1,4-dihydropyridine-3,5-dicarboxylate

**MOA:** It blocks intracellular influx of calcium through voltage-dependent and receptor-operated slow calcium channels across the membranes of myocardial, vascular smooth muscle, and neuronal cells. By specifically binding to L-type voltage-gated calcium channels, nimodipine inhibits the calcium ion transfer, resulting in the inhibition of vascular smooth muscle contraction.

**Uses:** Used for the management of patients with chronic stable angina and for the treatment of hypertension.

# Nicardipine

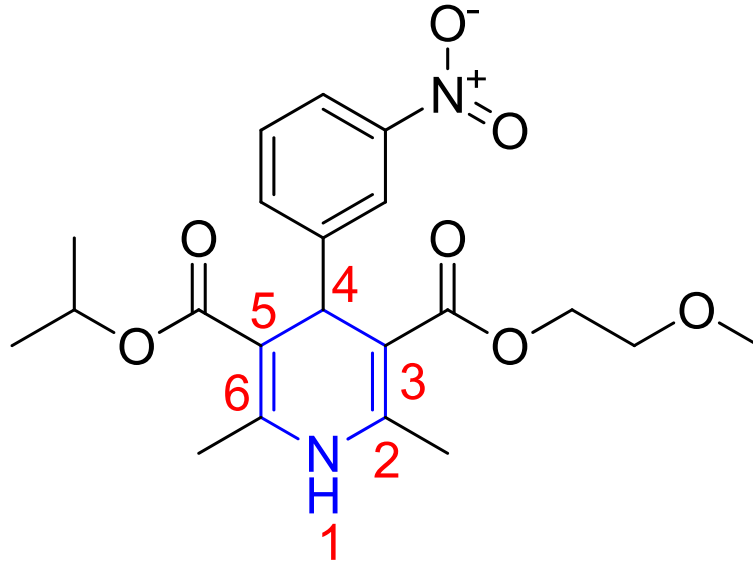


3- {2-[benzyl(methyl)amino]ethyl} 5-methyl 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylate

**MOA:** Nicardipine inhibits the influx of extracellular calcium across the myocardial and vascular smooth muscle cell membranes. The decrease in intracellular calcium inhibits the contractile processes of the myocardial smooth muscle cells, causing dilation of the coronary and systemic arteries, increased oxygen delivery to the myocardial tissue, decreased total peripheral resistance, decreased systemic blood pressure, and decreased afterload.

**Uses:** Used for the management of patients with chronic stable angina and for the treatment of hypertension.

# Nimodipine

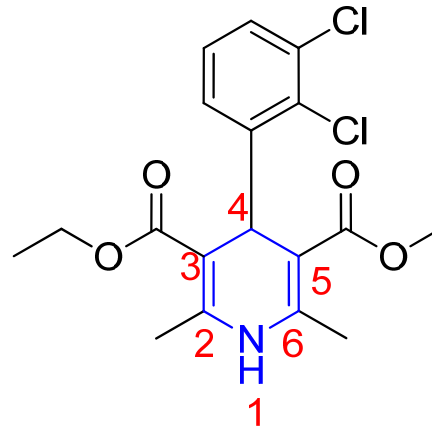


2,6-dimethyl-4-(3'-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylic acid 3- $\beta$ -methoxyethyl ester 5-isopropyl ester

**MOA:** Nimodipine blocks intracellular influx of calcium through voltage-dependent and receptor-operated slow calcium channels across the membranes of myocardial, vascular smooth muscle, and neuronal cells. By specifically binding to L-type voltage-gated calcium channels, nimodipine inhibits the calcium ion transfer, resulting in the inhibition of vascular smooth muscle contraction.

**Uses:** Used for the management of patients with chronic stable angina and for the treatment of hypertension.

# Felodipine



(±)-ethyl methyl 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate

**MOA:** It inhibits the influx of extracellular calcium across the myocardial and vascular smooth muscle cell membranes. The decrease in intracellular calcium inhibits the contractile processes of the myocardial smooth muscle cells, causing dilation of the coronary and systemic arteries, increased oxygen delivery to the myocardial tissue, decreased total peripheral resistance, decreased systemic blood pressure, and decreased afterload.

**Uses:** Used for the management of patients with chronic stable angina and for the treatment of hypertension.